Water Management for General Industry

Legionella Exposure

Help protect people from exposure to Legionella.



Health departments report thousands of cases of Legionnaires' disease every year.¹ However, because it is likely underdiagnosed, the number of diagnosed cases may understate the actual severity of the risk. Property owners need to take precautions to protect workers and visitors from Legionnaires and other communicable diseases.

What is Legionnaires' disease?

Legionnaires' disease is a serious bacterial pneumonia transmitted by waterborne droplets or by aspiration of contaminated water. The contaminated water can enter a water system in a variety of ways including during water main breaks, building construction or changes in the quality of the municipal water. A water management program can help prevent these outbreaks when carefully maintained and monitored.

Water management compliance

ANSI / ASHRAE Standard 188-2018 - Legionellosis: Risk Management for Building Water Systems provides minimum requirements for the design, construction, commissioning, operation, maintenance, repair, replacement, and expansion of new and existing buildings and their associated (potable and nonpotable) water systems and components.

There are three steps to get your safe water program in place:

STEP 1: COMPLETE A RISK ASSESSMENT

Establish a team responsible for development and monitoring of the program. This team should include:

- Employees who are knowledgeable of accreditation standards and licensing requirements
- Employees with expertise in infection prevention and/or infectious diseases
- Risk and quality management staff
- Building maintenance / engineering
- Housekeeping
- Occupational health
- Outside consultants such as plumber, HVAC, etc.

STEP 2: IMPLEMENT A WATER MANAGEMENT PROGRAM

Conduct a risk assessment to examine areas that may provide a place for legionella and opportunistic pathogens to grow and spread such as:

- Emergency water systems (fire sprinklers)
- Cooling towers or evaporative condensers
- Ice machines
- Shower heads
- Whirlpool spas, hot tubs, hydrotherapy spas
- Decorative fountains, misters, water features
- Centralized humidification or any room humidifiers
- On-site construction areas whether recent (six months) or ongoing

STEP 3: SPECIFY/DOCUMENT TESTING PROTOCOLS, CONTROLS AND CORRECTIVE ACTIONS

Develop a water management program according to your property's needs. Buildings have unique characteristics that require a tailor-made program.

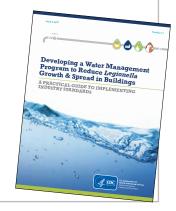
- Create building schematics that describe the water system using a flow diagram and written description
- Determine the control measures needed for the areas identified in your risk assessment
 - Water temperatures (hot and cold) outside the ideal range for bacterial growth
 - Water stagnation prevention look for dead-legs in the system
 - Ensure proper flushing of the system
 - Adequate disinfection levels
 - Visual inspections
- Monitor all controls and document on an ongoing basis; if results are not within the program specifications, there should be plans in place to correct deficiencies
- Implement, review and update your program on a regular basis; periodic environmental and clinical samplings should occur to validate the program's effectiveness

¹ "Legionella (Legionnaires' Disease and Pontiac Fever)," Centers for Disease Control and Prevention.



Look to the CDC for help.

The CDC offers a toolkit to help building owners and managers evaluate water systems and develop an effective water management program. To download the kit, go to: cdc.gov/legionella/ WMPtoolkit



Providing solutions to help our members manage risk.®

For your risk management and safety needs, contact Nationwide Loss Control Services: 1-866-808-2101 or LCS@nationwide.com.

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